

1/1/2023 – 3/31/2023

10 selected publications for the eCirculator:

[Sortilin enhances fibrosis and calcification in aortic valve disease by inducing interstitial cell heterogeneity.](#)

Iqbal F, Schlotter F, Becker-Greene D, Lupieri A, **Goettsch C, Hutcheson JD, Rogers MA**, Itoh S, Halu A, Lee LH, **Blaser MC**, Mlynarchik AK, Hagita S, Kuraoka S, Chen HY, Engert JC, Passos LSA, Jha PK, Osborn EA, Jaffer FA, Body SC, Robson SC, Thanassoulis G, **Aikawa M, Singh SA**, Sonawane AR, **Aikawa E**. Eur Heart J. 2023 Mar 7;44(10):885-898. doi: 10.1093/eurheartj/ehac818. PMID: 36660854

[Myoglobinemia, Peripheral Arterial Disease, and Patient Mortality.](#)

Scrivner O, Fletcher E, Hoffmann C, Li F, Wilkinson T, Miserlis D, Smith RS, Bohannon WT, Sutliff R, Jordan WD, Koutakis P, **Brewster LP**. J Am Coll Surg. 2023 Apr 1;236(4):588-598. doi: 10.1097/XCS.0000000000000554. Epub 2023 Jan 20. PMID: 36656266

[Epidermal growth factor receptor inhibition prevents vascular calcifying extracellular vesicle biogenesis.](#)

Bakhshian Nik A, **Ng HH**, Ashbrook SK, Sun P, Iacoviello F, Shearing PR, Bertazzo S, Mero D, Khomtchouk BB, **Hutcheson JD**. Am J Physiol Heart Circ Physiol. 2023 Apr 1;324(4):H553-H570. doi: 10.1152/ajpheart.00280.2022. Epub 2023 Feb 24. PMID: 36827229

[Tissue Engineering of Vascular Grafts: A Case Report From Bench to Bedside and Back.](#)

Breuer T, Jimenez M, Humphrey JD, **Shinoka T, Breuer CK**. Arterioscler Thromb Vasc Biol. 2023 Mar;43(3):399-409. doi: 10.1161/ATVBAHA.122.318236. Epub 2023 Jan 12. PMID: 36633008

[Decreased serotonin transporter activity in the mitral valve contributes to progression of degenerative mitral regurgitation.](#)

Castillero E, Fitzpatrick E, Keeney SJ, D'Angelo AM, Pressly BB, Simpson MT, Kurade M, Erwin WC, Moreno V, Camillo C, Shukla HJ, Inamdar VV, Aghali A, Grau JB, Salvati E, Nissim I, Rauova L, Oyama MA, Stachelek SJ, Brown C, Krieger AM, Levy RJ, **Ferrari G**. Sci Transl Med. 2023 Jan 4;15(677):eadc9606. doi: 10.1126/scitranslmed.adc9606. Epub 2023 Jan 4. PMID: 36599005

[Localized strain characterization of cardiomyopathy in Duchenne muscular dystrophy using novel 4D kinematic analysis of cine cardiovascular magnetic resonance.](#)

Earl CC, Pyle VI, Clark SQ, Annamalai K, Torres PA, Quintero A, Damen FW, Hor KN, Markham LW, Soslow JH, **Goergen CJ**. J Cardiovasc Magn Reson. 2023 Feb 16;25(1):14. doi: 10.1186/s12968-023-00922-3. PMID: 36793101

[Tricultured Cell Sheets Develop into Functional Pancreatic Islet Tissue with a Vascular Network.](#)

Homma J, Sekine H, **Shimizu T**. Tissue Eng Part A. 2023 Jan 27. doi: 10.1089/ten.TEA.2022.0167. Online ahead of print. PMID: 36565034

[Elastin-like protein hydrogels with controllable stress relaxation rate and stiffness modulate endothelial cell function.](#)

Shayan M, Huang MS, Navarro R, Chiang G, Hu C, Oropeza BP, Johansson PK, Suhar RA, Foster AA, LeSavage BL, Zamani M, Enejder A, Roth JG, Heilshorn SC, **Huang NF**. J Biomed Mater Res A. 2023 Mar 2. doi: 10.1002/jbm.a.37520. Online ahead of print. PMID: 36861665

[Hydrogel delivery of purinergic enzymes improves cardiac ischemia/reperfusion injury.](#)

Sayegh MN, Cooney KA, Han WM, Cicka M, Strobel F, Wang L, García AJ, **Levit RD**. J Mol Cell Cardiol. 2023 Mar;176:98-109. doi: 10.1016/j.yjmcc.2023.02.001. Epub 2023 Feb 9. PMID: 36764383

[Ecto-5'-nucleotidase \(Nt5e/CD73\)-mediated adenosine signaling attenuates TGFβ-2 induced elastin and cellular contraction.](#)

Cuevas RA, Wong R, Joolharzadeh P, Moorhead WJ 3rd, Chu CC, Callahan J 4th, Crane A, Boufford CK, Parise AM, Parwal A, Behzadi P, **St Hilaire C**. Am J Physiol Cell Physiol. 2023 Feb 1;324(2):C327-C338. doi: 10.1152/ajpcell.00054.2022. Epub 2022 Dec 12. PMID: 36503240

Remaining publications

[Epicardially secreted fibronectin drives cardiomyocyte maturation in 3D-engineered heart tissues.](#)

Ong LP, Bargehr J, Knight-Schrijver VR, Lee J, Colzani M, Bayraktar S, Bernard WG, Marchiano S, Bertero A, **Murry CE**, Gambardella L, Sinha S. Stem Cell Reports. 2023 Mar 27:S2213-6711(23)00062-0. doi: 10.1016/j.stemcr.2023.03.002. Online ahead of print. PMID: 37001515

[Editorial: Women in heart valve disease.](#)

Veulemans V, **Billaud M**, Nunes MCP, **Goettsch C**, **Aikawa E**. Front Cardiovasc Med. 2023 Mar 13;10:1150169. doi: 10.3389/fcvm.2023.1150169. eCollection 2023. PMID: 36994000

[Advances in 3D Organoid Models for Stem Cell-Based Cardiac Regeneration.](#)

Martin M, Gähwiler EKN, Generali M, **Hoerstrup SP**, Emmert MY. Int J Mol Sci. 2023 Mar 8;24(6):5188. doi: 10.3390/ijms24065188. PMID: 36982261

[Acellular Human Placenta Small-Diameter Vessels as a Favorable Source of Super-Microsurgical Vascular Replacements: A Proof of Concept.](#)

Falkner F, Mayer SA, Thomas B, Zimmermann SO, Walter S, Heimel P, Thiele W, Sleeman JP, Bigdeli AK, Kiss H, Podesser BK, Kneser U, **Bergmeister H**, **Schneider KH**. Bioengineering (Basel). 2023 Mar 7;10(3):337. doi: 10.3390/bioengineering10030337. PMID: 36978728

[Recent Tissue Engineering Approaches to Mimicking the Extracellular Matrix Structure for Skin Regeneration.](#)

Hama R, Reinhardt JW, Ulziibayar A, Watanabe T, Kelly J, **Shinoka T**. Biomimetics (Basel). 2023 Mar 22;8(1):130. doi: 10.3390/biomimetics8010130. PMID: 36975360

[Polymeric prosthetic heart valves: A review of current technologies and future directions.](#)

Singh SK, Kachel M, **Castillero E**, **Xue Y**, **Kalfa D**, **Ferrari G**, George I. Front Cardiovasc Med. 2023 Mar 9;10:1137827. doi: 10.3389/fcvm.2023.1137827. eCollection 2023. PMID: 36970335

[Exosomes, microvesicles, and other extracellular vesicles-a Keystone Symposia report.](#)

Cable J, Witwer KW, Coffey RJ, Milosavljevic A, von Lersner AK, Jimenez L, Pucci F, Barr MM, Dekker N, Barman B, Humphrys D, Williams J, de Palma M, Guo W, Bastos N, Hill AF, Levy E, Hantak MP, Crewe C, **Aikawa E**, Adamczyk AM, Zanotto TM, Ostrowski M, Arab T, Rabe DC, Sheikh A, da Silva DR, Jones JC, Okeoma C, Gaborski T, Zhang Q, Gololobova O. Ann N Y Acad Sci. 2023 Mar 18. doi: 10.1111/nyas.14974. Online ahead of print. PMID: 36961472

[Human Neural Stem Cell Secretome Inhibits Neuron Heme Uptake and Ferroptosis in Intracerebral Hemorrhage through Nrf-2 Signaling Pathway.](#)

Lv X, Ling Y, Niu D, Zeng Y, Qiu Y, Si Y, Guo T, Ni Y, Zhang J, **Wang Z**, Hu J. Stem Cells Dev. 2023 Mar 24. doi: 10.1089/scd.2023.0010. Online ahead of print. PMID: 36960702

[Integrated analysis of C3AR1 and CD163 associated with immune infiltration in intracranial aneurysms pathogenesis.](#)

Li S, Xiao J, Yu Z, Li J, **Shang H**, Zhang L. Heliyon. 2023 Mar 11;9(3):e14470. doi: 10.1016/j.heliyon.2023.e14470. eCollection 2023 Mar. PMID: 36942257

[Micropatterned fibrin scaffolds increase cardiomyocyte alignment and contractility for the fabrication of engineered myocardial tissue.](#)

English EJ, Samolyk BL, **Gaudette GR**, Pins GD. J Biomed Mater Res A. 2023 Mar 18. doi: 10.1002/jbm.a.37530. Online ahead of print. PMID: 36932841

[Identification of Potent, Selective, and Peripherally Restricted Serotonin Receptor 2B Antagonists from a High-Throughput Screen.](#)

Bender AM, Valentine MS, Bauer JA, Days E, Lindsley CW, **Merryman WD**. Assay Drug Dev Technol. 2023 Mar 17. doi: 10.1089/adt.2022.116. Online ahead of print. PMID: 36930852

[Single-cell analysis reveals TLR-induced macrophage heterogeneity and quorum sensing dictate population wide anti-inflammatory feedback in response to LPS.](#)

Tiemeijer BM, Heester S, Sturtewagen AYW, **Smits AIPM**, Tel J. Front Immunol. 2023 Feb 24;14:1135223. doi: 10.3389/fimmu.2023.1135223. eCollection 2023. PMID: 36911668

[In Vitro Proof of Concept of a First-Generation Growth-Accommodating Heart Valved Conduit for Pediatric Use.](#)

Li RL, Sun M, Russ JB, Pousse PL, Kossar AP, Gibson I, Paschalides C, Herschman AR, Abyaneh MH, **Ferrari G**, Bacha E, Waisman H, Vedula V, Kysar JW, **Kalfa D**. Macromol Biosci. 2023 Mar 11:e2300011. doi: 10.1002/mabi.202300011. Online ahead of print. PMID: 36905285

[NLRP3 Inflammasome Activation in Peripheral Arterial Disease.](#)

Bartoli-Leonard F, Zimmer J, Sonawane AR, Perez K, Turner ME, Kuraoka S, Pham T, Li F, **Aikawa M**, **Singh S**, **Brewster L**, **Aikawa E**. J Am Heart Assoc. 2023 Mar 21;12(6):e026945. doi: 10.1161/JAHA.122.026945. Epub 2023 Mar 9. PMID: 36892058

[Evaluation of Lower Extremity Calcium Score as a Measure of Peripheral Arterial Disease Burden and Amputation Risk.](#)

Lee S, Kalra K, Kashikar A, Redpath B, Bernheim A, **Brewster L**, Shaw L, Arya S. Ann Vasc Surg. 2023 Mar 6;S0890-5096(23)00109-7. doi: 10.1016/j.avsg.2023.02.009. Online ahead of print. PMID: 36889632

[Targeted PERK inhibition with biomimetic nanoclusters confers preventative and interventional benefits to elastase-induced abdominal aortic aneurysms.](#)

Yodsanit N, Shirasu T, Huang Y, Yin L, Islam ZH, Gregg AC, Riccio AM, Tang R, Kent EW, Wang Y, Xie R, Zhao Y, Ye M, Zhu J, Huang Y, Hoyt N, Zhang M, Hossack JA, Salmon M, **Kent KC**, Guo LW, Gong S, Wang B. Bioact Mater. 2023 Feb 21;26:52-63. doi: 10.1016/j.bioactmat.2023.02.009. eCollection 2023 Aug. PMID: 36875050

[Nondestructive Evaluation of Mechanical and Histological Properties of the Human Aorta With Near-Infrared Spectroscopy.](#)

Sarin JK, Kiema M, Luoto ES, Husso A, Hedman M, **Laakkonen JP**, Torniainen J. J Surg Res. 2023 Mar 2;287:82-89. doi: 10.1016/j.jss.2023.01.016. Online ahead of print. PMID: 36870305

[Pyruvate dehydrogenase kinase regulates vascular inflammation in atherosclerosis and increases cardiovascular risk.](#)

Forteza MJ, Berg M, Edsfeldt A, Sun J, Baumgartner R, Kareinen I, Casagrande FB, **Hedin U**, Zhang S, Vuckovic I, Dzeja PP, Polyzos KA, Gisterå A, Trauelsen M, Schwartz TW, Dib L, Herrmann J, Monaco C, Matic L, Gonçalves I, Ketelhuth DFJ. Cardiovasc Res. 2023 Mar 2;cvad038. doi: 10.1093/cvr/cvad038. Online ahead of print. PMID: 36866436

[Dynamical modeling reveals RNA decay mediates the effect of matrix stiffness on aged muscle stem cell fate.](#)

Hettinger ZR, Hu S, Mamiya H, Sahu A, Iijima H, Wang K, Gilmer G, Miller A, Nasello G, Dâ Amore A, **Vorp DA**, Rando TA, Xing J, Ambrosio F. bioRxiv. 2023 Mar 2:2023.02.24.529950. doi: 10.1101/2023.02.24.529950. Preprint. PMID: 36865124

[Activation of the Hedgehog signaling pathway leads to fibrosis in aortic valves.](#)

Gu D, Soepriatna AH, Zhang W, Li J, Zhao J, Zhang X, Shu X, Wang Y, Landis BJ, **Goergen CJ**, Xie J. Cell Biosci. 2023 Mar 2;13(1):43. doi: 10.1186/s13578-023-00980-1. PMID: 36864465

[Current biofabrication methods for vascular tissue engineering and an introduction to biological textiles.](#)

Kawecki F, L'Heureux N. Biofabrication. 2023 Mar 10;15(2). doi: 10.1088/1758-5090/acbf7a. PMID: 36848675

[Conjugated Bile Acids Promote Lymphangiogenesis by Modulation of the Reactive Oxygen Species-p90RSK-Vascular Endothelial Growth Factor Receptor 3 Pathway.](#)

Banerjee P, Kumaravel S, Roy S, Gaddam N, Odeh J, **Bayless KJ**, Glaser S, Chakraborty S. Cells. 2023 Feb 6;12(4):526. doi: 10.3390/cells12040526. PMID: 36831193

[Recent Developments in Biopolymer-Based Hydrogels for Tissue Engineering Applications.](#)

Hama R, Ulziibayar A, Reinhardt JW, Watanabe T, Kelly J, **Shinoka T.** Biomolecules. 2023 Feb 2;13(2):280. doi: 10.3390/biom13020280. PMID: 36830649

[The Application of Porous Scaffolds for Cardiovascular Tissues.](#)

Watanabe T, Sassi S, Ulziibayar A, Hama R, Kitsuka T, **Shinoka T.** Bioengineering (Basel). 2023 Feb 10;10(2):236. doi: 10.3390/bioengineering10020236. PMID: 36829730

[Three-Dimensional Culture of Vascularized Thermogenic Adipose Tissue from Microvascular Fragments.](#)

Acosta FM, Gonzalez Porras MA, Stojkova K, Pacelli S, Rathbone CR, **Brey EM.** J Vis Exp. 2023 Feb 3;(192). doi: 10.3791/64650. PMID: 36806034

[Cardiovascular Organoids/3D Models Review Series: an Introduction.](#)

St Hilaire C. Circ Res. 2023 Feb 17;132(4):481-482. doi: 10.1161/CIRCRESAHA.123.322561. Epub 2023 Feb 16. PMID: 36795848

[Analysis of Extracellular Vesicle-Mediated Vascular Calcification Using In Vitro and In Vivo Models.](#)

Ashbrook SK, Valentin Cabrera AM, Shaver M, **Hutcheson JD.** J Vis Exp. 2023 Jan 27;(191). doi: 10.3791/65013. PMID: 36779615

[Mitochondrial-Derived Vesicles-Link to Extracellular Vesicles and Implications in Cardiovascular Disease.](#)

Heyn J, **Heuschkel MA, Goettsch C.** Int J Mol Sci. 2023 Jan 30;24(3):2637. doi: 10.3390/ijms24032637. PMID: 36768960

[Membrane Remodeling of Human-Engineered Cardiac Tissue by Chronic Electric Stimulation.](#)

Sesena-Rubfiaro A, Prajapati NJ, Paolino L, Lou L, Cotayo D, Pandey P, Shaver M, **Hutcheson JD**, Agarwal A, He J. ACS Biomater Sci Eng. 2023 Mar 13;9(3):1644-1655. doi: 10.1021/acsbiomaterials.2c01370. Epub 2023 Feb 10. PMID: 36765460

[Conserved miR-370-3p/BMP-7 axis regulates the phenotypic change of human vascular smooth muscle cells.](#)

Kim Y, Yu N, Jang YE, Lee E, Jung Y, Lee DJ, **Taylor WR**, Jo H, Kim J, Lee S, Kang SW. Sci Rep. 2023 Feb 10;13(1):2404. doi: 10.1038/s41598-022-26711-z. PMID: 36765143

[Engineered tissue vascularization and engraftment depends on host model.](#)

Brady EL, Prado O, Johansson F, Mitchell SN, Martinson AM, Karbassi E, Reinecke H, **Murry CE**, Davis J, Stevens KR. Sci Rep. 2023 Feb 3;13(1):1973. doi: 10.1038/s41598-022-23895-2. PMID: 36737618

[Network-Guided Multiomic Mapping of Aortic Valve Calcification.](#)

Blaser MC, Kraler S, Lüscher TF, **Aikawa E**. Arterioscler Thromb Vasc Biol. 2023 Mar;43(3):417-426. doi: 10.1161/ATVBAHA.122.318334. Epub 2023 Feb 2. PMID: 36727519

[ASAP—Automated Sonication-Free Acid-Assisted Proteomes—from Cells and FFPE Tissues.](#)

Barnabas GD, Goebeler V, **Tsui J**, Bush JW, Lange PF. Anal Chem. 2023 Feb 14;95(6):3291-3299. doi: 10.1021/acs.analchem.2c04264. Epub 2023 Feb 1. PMID: 36724070

[Implanted Tissue-Engineered Vascular Graft Cell Isolation with Single-Cell RNA Sequencing Analysis.](#)

Mirhaidari GJM, Barker JC, **Breuer CK**, Reinhardt JW. Tissue Eng Part C Methods. 2023 Feb;29(2):72-84. doi: 10.1089/ten.TEC.2022.0189. PMID: 36719780

[Incorporation of Targeting Biomolecule Improves Interpolymer Complex-Superparamagnetic Iron Oxide Nanoparticles Attachment to and Activation of T₂ MR Signals in M2 Macrophages.](#)

Nwasike C, Purr E, Nagi JS, Mahler GJ, **Doiron AL**. Int J Nanomedicine. 2023 Jan 24;18:473-487. doi: 10.2147/IJN.S392567. eCollection 2023. PMID: 36718192

[Platelet tissue factor pathway inhibitor- \$\alpha\$ dampens cardiac thrombosis and associated fibrosis in mice.](#)

Maroney SA, Siebert AE, Martinez ND, Rasmussen M, Peterson JA, Weiler H, **Lincoln J**, Mast AE. J Thromb Haemost. 2023 Mar;21(3):639-651. doi: 10.1016/j.jtha.2022.11.034. Epub 2022 Dec 22. PMID: 36696221

[Editorial: Biomaterials in cardiovascular research: Models, methods, and therapies.](#)

Xue Y, Akhyari P, Duan B, **Ng HH**, Zhao Z. Front Bioeng Biotechnol. 2023 Jan 4;10:1116015. doi: 10.3389/fbioe.2022.1116015. eCollection 2022. PMID: 36686250

[Deep-learning method for fully automatic segmentation of the abdominal aortic aneurysm from computed tomography imaging.](#)

Abdolmanafi A, Forneris A, Moore RD, **Di Martino ES**. Front Cardiovasc Med. 2023 Jan 5;9:1040053. doi: 10.3389/fcvm.2022.1040053. eCollection 2022. PMID: 36684599

[Development of tropoelastin-functionalized anisotropic PCL scaffolds for musculoskeletal tissue engineering.](#)

Zhang M, **Wang Z**, Zhang A, Liu L, Mithieux SM, Bilek MMM, Weiss AS. Regen Biomater. 2022 Oct 27;10:rbac087. doi: 10.1093/rb/rbac087. eCollection 2023. PMID: 36683733

[Biomedical Applications of Collagen.](#)

Huang NF, Zaitseva TS, Paukshto MV. Bioengineering (Basel). 2023 Jan 10;10(1):90. doi: 10.3390/bioengineering10010090. PMID: 36671662

[Myeloid CCN3 protects against aortic valve calcification.](#)

Tu P, Xu Q, Zhou X, Villa-Roel N, **Kumar S**, Dong N, Jo H, Ou C, Lin Z. Cell Commun Signal. 2023 Jan 20;21(1):14. doi: 10.1186/s12964-022-01020-0. PMID: 36670446

[Vessel-by-vessel analysis of lower extremity ¹⁸F-NaF PET/CT imaging quantifies diabetes- and chronic kidney disease-induced active microcalcification in patients with peripheral arterial disease.](#)

Chou TH, Rimmerman ET, Patel S, Wynveen MK, Eisert SN, Musini KN, Janse SA, Bobbey AJ, Sarac TP, Atway SA, Go MR, **Stacy MR**. EJNMMI Res. 2023 Jan 17;13(1):3. doi: 10.1186/s13550-023-00951-0. PMID: 36648583

[Application of the mineral-binding protein fetuin-A for the detection of calcified lesions.](#)

Dzhanaev R, Hasberg C, Gorgels A, Schmitz C, Winkler CF, Malyaran H, Gräber S, Gentier A, Jaminon A, Agten S, Hackeng T, Akbulut AC, Schurgers L, Mottaghy FM, **Goettsch C**, Jahnen-Dechent W. *Theranostics*. 2023 Jan 1;13(2):659-672. doi: 10.7150/thno.78773. eCollection 2023. PMID: 36632229

[Transiently heritable fates and quorum sensing drive early IFN-I response dynamics.](#)

Van Eyndhoven LC, Verberne VPG, **Bouten CVC**, Singh A, Tel J. *Elife*. 2023 Jan 11;12:e83055. doi: 10.7554/eLife.83055. PMID: 36629318

[Developing small-diameter vascular grafts with human amniotic membrane: long-term evaluation of transplantation outcomes in a small animal model.](#)

Wang B, Wang X, Kenneth A, Drena A, Pacheco A, Kalvin L, Ibrahim ES, Rossi PJ, Thatcher K, **Lincoln J**. *Biofabrication*. 2023 Jan 30;15(2). doi: 10.1088/1758-5090/acb1da. PMID: 36626826

[Neurovascular hypoxia after mild traumatic brain injury in juvenile mice correlates with heart-brain dysfunctions in adulthood.](#)

Leyba K, Paiyabhroma N, Salvat JP, Damen FW, Janvier A, Zub E, Bernis C, Rouland R, Dubois CJ, Badaut J, Richard S, Marchi N, **Goergen CJ**, Sicard P. *Acta Physiol (Oxf)*. 2023 Jan 10:e13933. doi: 10.1111/apha.13933. Online ahead of print. PMID: 36625322

[The contribution of amyloid deposition in the aortic valve to calcification and aortic stenosis.](#)

Sud K, Narula N, **Aikawa E**, Arbustini E, Pibarot P, Merlini G, Rosenson RS, Seshan SV, Argulian E, Ahmadi A, Zhou F, Moreira AL, Côté N, Tsimikas S, Fuster V, Gandy S, Bonow RO, Gursky O, Narula J. *Nat Rev Cardiol*. 2023 Jan 9. doi: 10.1038/s41569-022-00818-2. Online ahead of print. PMID: 36624274

[Comparison of modes of failure and clinical outcomes between explanted porcine and bovine pericardial bioprosthetic valves.](#)

Keshishi M, Fatima R, Seidman MA, **Butany J**, Ouzounian M, Chung J. *Cardiovasc Pathol*. 2023 Jan 6;65:107516. doi: 10.1016/j.carpath.2022.107516. Online ahead of print. PMID: 36621556

[Aortic Stress Activates an Adaptive Program in Thoracic Aortic Smooth Muscle Cells That Maintains Aortic Strength and Protects Against Aneurysm and Dissection in Mice.](#)

Zhang C, Li Y, Chakraborty A, Li Y, Rebello KR, Ren P, Luo W, Zhang L, Lu HS, Cassis LA, Coselli JS, Daugherty A, **LeMaire SA**, Shen YH. *Arterioscler Thromb Vasc Biol*. 2023 Feb;43(2):234-252. doi: 10.1161/ATVBAHA.122.318135. Epub 2022 Dec 29. PMID: 36579645

[Bioprosthetic heart valve structural degeneration associated with metabolic syndrome: Mitigation with polyoxazoline modification.](#)

Abramov A, **Xue Y**, Zakharchenko A, Kurade M, Soni RK, Levy RJ, **Ferrari G**. Proc Natl Acad Sci U S A. 2023 Jan 3;120(1):e2219054120. doi: 10.1073/pnas.2219054120. Epub 2022 Dec 27. PMID: 36574676

[Shear-mediated ALK5 expression regulates endothelial activation.](#)

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[Engineered Human Muscle Tissue from Multilayered Aligned Myofiber Sheets for Studies of Muscle Physiology and Predicting Drug Response.](#)

Takahashi H, Wakayama H, Nagase K, **Shimizu T**. Small Methods. 2023 Feb;7(2):e2200849. doi: 10.1002/smt.202200849. Epub 2022 Dec 23. PMID: 36562139

[Two distinct gut microbial pathways contribute to meta-organismal production of phenylacetylglutamine with links to cardiovascular disease.](#)

Zhu Y, Dwidar M, Nemet I, Buffa JA, Sangwan N, Li XS, **Anderson JT**, Romano KA, Fu X, Funabashi M, Wang Z, Keranahalli P, Battle S, Tittle AN, Hajjar AM, Gogonea V, Fischbach MA, DiDonato JA, Hazen SL. Cell Host Microbe. 2023 Jan 11;31(1):18-32.e9. doi: 10.1016/j.chom.2022.11.015. Epub 2022 Dec 21. PMID: 36549300

[Annexin A2 modulates phospholipid membrane composition upstream of Arp2 to control angiogenic sprout initiation.](#)

Sveeggen TM, Abbey CA, Smith RL, Salinas ML, Chapkin RS, **Bayless KJ**. FASEB J. 2023 Jan;37(1):e22715. doi: 10.1096/fj.202201088R. PMID: 36527391

[In silico model of atherosclerosis with individual patient calibration to enable precision medicine for cardiovascular disease.](#)

Buckler AJ, Marlevi D, Skenteris NT, Lengquist M, Kronqvist M, Matic L, **Hedin U**. Comput Biol Med. 2023 Jan;152:106364. doi: 10.1016/j.combiomed.2022.106364. Epub 2022 Nov 30. PMID: 36525832

[Dynamic chromatin organization and regulatory interactions in human endothelial cell differentiation.](#)

Alavattam KG, Mitzelfelt KA, Bonora G, Fields PA, Yang X, Chiu HS, Pabon L, Bertero A, Palpant NJ, Noble WS, **Murry CE**. Stem Cell Reports. 2023 Jan 10;18(1):159-174. doi: 10.1016/j.stemcr.2022.11.003. Epub 2022 Dec 8. PMID: 36493778

[Embryonic aortic arch material properties obtained by optical coherence tomography-guided micropipette aspiration.](#)

Lashkarinia SS, Coban G, Banu Siddiqui H, Hwai Yap C, **Pekkan K**. J Biomech. 2023 Jan;146:111392. doi: 10.1016/j.jbiomech.2022.111392. Epub 2022 Nov 21. PMID: 36473286

[Amount of Pannexin 1 in Smooth Muscle Cells Regulates Sympathetic Nerve-Induced Vasoconstriction.](#)

Dunaway LS, **Billaud M**, Macal E, Good ME, Medina CB, Lorenz U, Ravichandran K, Koval M, Isakson BE. Hypertension. 2023 Feb;80(2):416-425. doi: 10.1161/HYPERTENSIONAHA.122.20280. Epub 2022 Nov 30. PMID: 36448464

[Development of three-dimensionally printed vascular stents of bioresorbable poly\(l-lactide-co-caprolactone\).](#)

Zhao J, Song G, Zhao Q, Feng H, Wang Y, **Anderson JM**, Zhao H, Liu Q. J Biomed Mater Res B Appl Biomater. 2023 Mar;111(3):656-664. doi: 10.1002/jbm.b.35184. Epub 2022 Nov 24. PMID: 36420745

[Changes in miRNA expression in patients with peripheral arterial vascular disease during moderate- and vigorous-intensity physical activity.](#)

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